



An education expert in your pocket

CS377E | Spring 2023

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Meet Angela



Meet Angela

“For every [homeschooling] parent, it’s **intimidating** — no one ever feels competent and secure like they’re doing a great job...”



Problem

Differing resources and
parental experience lead to
unequal outcomes in
homeschooling.



Problem

Differing resources and parental experience lead to unequal outcomes in homeschooling.



Solution

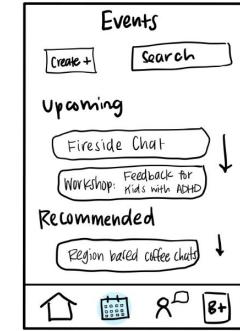
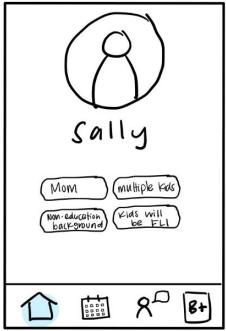
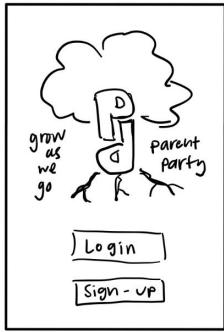
We provide resources for homeschooling parents to be better equipped and empowered in their teaching.





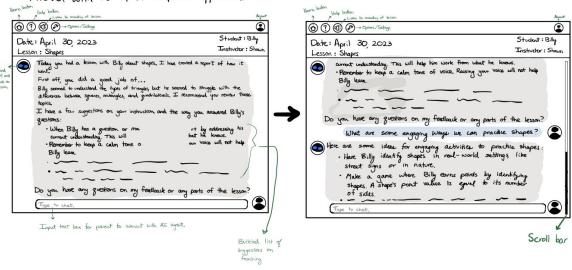
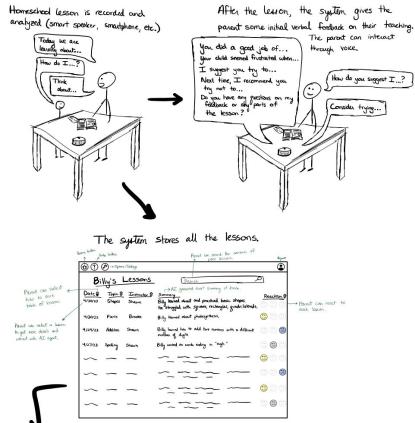
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Design Evolution



Storyboards and Ideation

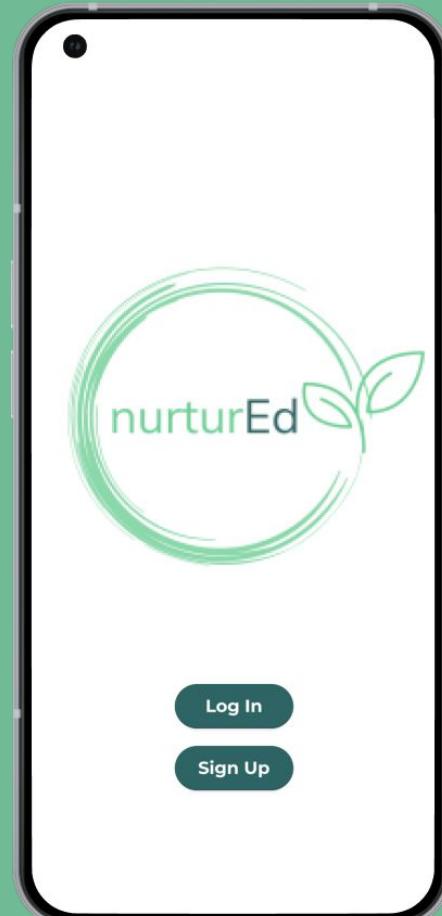
Feedback workshop
platform & forum for parents



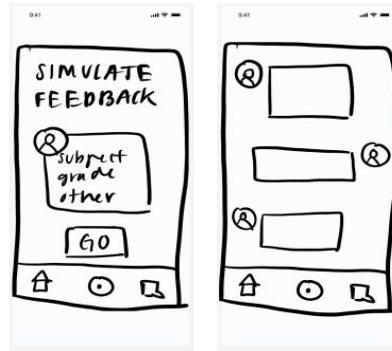
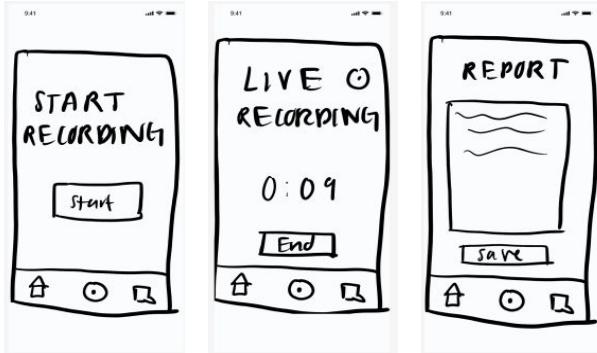
AI lesson recorder &
post-lesson feedback
generation

Mobile App

“[As a homeschooling parent, your] life is very integrated. It’s **go, go, go.**”



Low-fi Prototype



Insights

Time is a key resource

AI is non-judgemental

Proxy for Teacher-Ed programs

Features



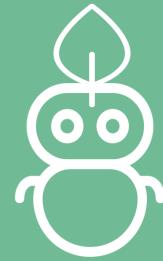
Tip of the
Day



Lesson
Recording



Lesson
Report



AI
Assistant

Med-fi Iteration Themes

1

How do we make **intuitive functionality?**



2

How do we ensure that we keep an **encouraging tone?**

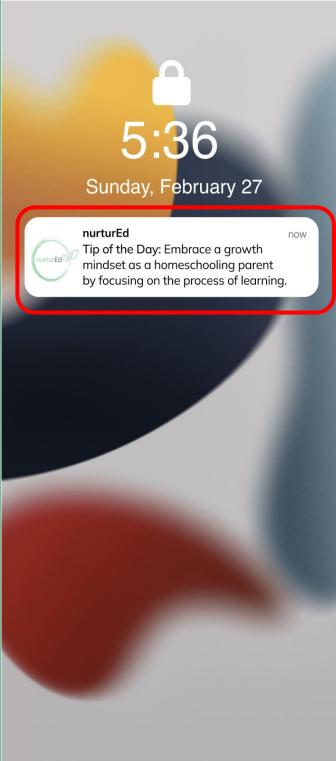


3

How do we optimize **information presentation?**



Tip of the day



The "Home" screen of the nurturEd app. At the top right is a "Saved Tips" button. In the center, there's a "Tip of the Day" section with a lightning bolt icon and the title "Tip of the Day". The tip text reads: "Embrace a growth mindset as a homeschooling parent by focusing on the process of learning rather than just the outcomes." Below this are "Save" and "Learn More" buttons, with the "Learn More" button highlighted by a red box and a red arrow pointing from the lock screen notification. Further down, there's a "Recent Lessons" section listing three recorded lessons: "Recorded a lesson" for Student 1 on Photosynthesis (1d ago), "Recorded a lesson" for Student 2 on Water Cycle (1d ago), and "Recorded a lesson" for Student 1 on Long Division (4d ago). Each lesson item has a "SEE REPORT >>" link. The bottom of the screen features a navigation bar with icons for Home, Lessons, Microphones, and Chat.

The "Learn More" screen of the nurturEd app. It starts with a section titled "← Learn More" with the subtitle "Embrace a growth mindset". Below this is a "Insights | Mon, May 8:" section. It features a bar chart titled "# of Question" vs "# of questions/lesson". The chart shows several bars of varying heights. To the right of the chart is a section titled "Autonomy in learning" with the text: "Adolescents are 110% more likely to creatively develop their passions when they are given more autonomy in their learning." and a "LEARN MORE >>" link. Another section below it is titled "Eliciting student engagement" with the text: "When students are actively engaged, they are more motivated and involved, leading to improved retention and application of knowledge." and a "LEARN MORE >>" link. The bottom of the screen features a navigation bar with icons for Home, Lessons, Microphones, and Chat.

Encouraging tone & resources

Changes | Tip of the Day

Home

Tip of the Day

Be patient - Homeschooling can be a challenging process for both parent and child, so it's important to take your time and be patient

Save **Learn More**

Your activity:

- Recorded a lesson 1d ago
You recorded a lesson with Student 1 yesterday about Photosynthesis [SEE REPORT >>](#)
- Recorded a lesson 1d ago
You recorded a lesson with Student 2 yesterday about the Water Cycle [SEE REPORT >>](#)
- Recorded a lesson 4d ago
You recorded a lesson with Student 1 earlier this week about Long Division [SEE REPORT >>](#)

[Home](#) [Report](#) [Microphone](#) [User](#)

← Tip of the Day

Be patient - Homeschooling can be a challenging process for both parent and child, so it's important to take your time and be patient

Your insights | Mon, May 8:

In your past 3/7 lessons, the ratio of time spent teaching vs engaging with the students and their questions has been 80:20.

This graphic shows the number of questions asked per lesson in the past week.

Autonomy in learning

Research has shown that adolescents are 110% more likely to creatively develop their passions and explore their own interests and foster increased independence when they are given more autonomy in their learning. This leads to better learning outcomes.

[LEARN MORE >>](#)

Eliciting student engagement

When students are actively engaged in the learning process, they become more motivated, attentive, and involved, leading to improved retention and application of knowledge.

[LEARN MORE >>](#)

[Home](#) [Report](#) [Microphone](#) [User](#)

Home

Tip of the Day

Embrace a growth mindset as a homeschooling parent by focusing on the process of learning rather than just the outcomes.

Save **Learn More**

Recent Lessons:

- Recorded a lesson 1d ago
Student 1 | Photosynthesis [SEE REPORT >>](#)
- Recorded a lesson 1d ago
Student 2 | Water Cycle [SEE REPORT >>](#)
- Recorded a lesson 4d ago
Student 1 | Long Division [SEE REPORT >>](#)

[Home](#) [Report](#) [Microphone](#) [User](#)

← Learn More

Embrace a growth mindset

Insights | Mon, May 8:

of Question

of questions/lesson

Autonomy in learning

Adolescents are 110% more likely to creatively develop their passions when they are given more autonomy in their learning.

[LEARN MORE >>](#)

Eliciting student engagement

When students are actively engaged, they are more motivated and involved, leading to improved retention and application of knowledge.

[LEARN MORE >>](#)

[Home](#) [Report](#) [Microphone](#) [User](#)

Improved information presentation

Changes | Reports + AI Assistant

← Lesson Report

Photosynthesis

Student: Student 1 Mon, 5/8/23
Instructor: Parent 1 12:40 PM
 43 min.

In this lesson, Parent 1 taught Student 1 about photosynthesis. I have generated a report on how it went.

To start, you did a good job of...

Billy seemed to understand... but he had multiple questions about... I recommend you review those topics.

I have a few suggestions on your instruction:

- Try to ask a few more questions about Billy's understanding.

Do you have any questions about the report or the lesson?

What is a question I should've asked?

You could ask: "What is the name of the compound that makes plants green?"

Send a message



← Lesson Report

Photosynthesis

Student: Student 1 Instructor: Parent 1 [View Transcript](#)

[Expand all](#) [Collapse all](#)

Summary

In this lesson, Parent 1 taught Student 1 about photosynthesis. The topics covered were

- Plant parts
- Sunlight
- Carbon dioxide and water intake
- Chloroplasts
- Glucose

What Worked

Content Suggestions

Chat with AI assistant

AI Assistant

Seedling

Hi there! I'm Seedling, and I'm here to answer any and all questions you may have about homeschooling! What can I help with today?

Hi! I'm pretty new to homeschooling and feel like I need ideas for hands-on experiences that I can use to engage my son. He's in first grade and really interested in science and Legos. Do you have any ideas for activities that could use Legos and teach him some science concepts?

Chat with AI assistant

Improved information hierarchy
and simpler functionality

Lesson report

The figure consists of three vertically aligned screenshots of a mobile application's "Lesson Reports" feature. A red box highlights the first item in the list, "Photosynthesis". A red arrow points from this item to the second screenshot, which shows a detailed "Lesson Report" for "Photosynthesis". This report includes sections like "Summary", "What Worked", "Content Suggestions", "Teaching Methodology", and "Additional Resources". Another red arrow points from the "Summary" section of the second screenshot to the third screenshot, which provides a summary of the "Photosynthesis" lesson, listing topics such as Plant parts, Sunlight, Carbon dioxide and water intake, Chloroplasts, and Glucose.

Lesson Reports

- Photosynthesis** (Monday, May 08)
Charlie, Jonas (Test tube icon)
- Creative Writing** (Monday, May 08)
Charlie (Pencil icon)
- American Revolution** (Monday, May 08)
Charlie, Leya (Building icon)
- Shakespeare** (Friday, May 05)
Jonas, Leya (Book icon)
- California History** (Friday, May 05)

← Lesson Report

Photosynthesis

Student: Student 1
Instructor: Parent 1

View Transcript

Expand all **Collapse all**

Summary ▾

What Worked ▾

Content Suggestions ▾

Teaching Methodology ▾

Additional Resources ▾

Chat with AI assistant

← Lesson Report

Photosynthesis

Student: Student 1
Instructor: Parent 1

View Transcript

Expand all **Collapse all**

Summary ▲

In this lesson, Parent 1 taught Student 1 about photosynthesis. The topics covered were

- Plant parts
- Sunlight
- Carbon dioxide and water intake
- Chloroplasts
- Glucose

What Worked ▾

Content Suggestions ▾

Chat with AI assistant

"I do like that there are bullet points [in summary]."



Information hierarchy

AI Assistant

The image displays two screenshots of a mobile application interface for an AI Assistant. In the first screenshot, the AI is identified as "Seedling". The AI's message is: "Hi there! I'm Seedling, and I'm here to answer any and all questions you may have about homeschooling! What can I help with today?" A red box highlights the "Chat with AI assistant" button at the bottom. In the second screenshot, the AI's message is: "Hi! I'm pretty new to homeschooling and feel like I need ideas for hands-on experiences that I can use to engage my son. He's in first grade and really interested in science and Legos. Do you have any ideas for activities that could use Legos and teach him some science concept?" A red box highlights the "Chat with AI assistant" button at the bottom. A red arrow points from the second screenshot to a detailed information card on the right.

Seedling

- Seedling is an AI assistant here to give you personalized help!
- Ask Seedling any question and it will give you a tailored response and personalized recommendations.
- Consider asking:
 - "Give me a bullet-pointed list of 5 experiments that help teach about photosynthesis."
 - "What are strategies for giving helpful feedback on my child's assignments?"
 - "My child was interested during our lesson on photosynthesis. What content should I teach next?"

Back

"You're providing parents with the kind of expertise they would get when sitting down with an education expert."



Information presentation

Recording Details

Uploading your
recording!

20 seconds

...

Next Steps

1

Implement AI
functionality

2

Continued user
testing

3

Secure
partnerships

Mission

Empowerment and confidence
through personalized feedback
and AI assistance



Thank you! Questions?



**Nathan
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Grace Zhang

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Check out our prototype!



**Empowerment and confidence
through personalized feedback
and AI assistance**

Thank you! Questions?



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HCI Coterm



**Grace
Zhang**
CS,
HCI Coterm

Check out nurturEd!



The image displays two smartphones side-by-side, illustrating the nurturEd mobile application. The left phone's screen shows a 'Learn More' section with a title 'Embrace a growth mindset'. It features a bar chart titled 'Insights | Mon, May 8:' showing the number of questions per lesson. Below the chart are two sections: 'Autonomy in learning' (with a note that adolescents are 110% more likely to creatively develop their passions when given autonomy) and 'Eliciting student engagement' (with a note that active students are more motivated and involved). The right phone's screen shows a 'Lesson Report' for the topic 'Photosynthesis'. It includes a summary, content suggestions, and a 'Chat with AI assistant' feature. The overall design is clean and modern, with a green and white color scheme.

An education expert in your pocket

Thank you! Questions?



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**Claire
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HCI Coterm



**Grace
Zhang**
CS,
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Check out our prototype!

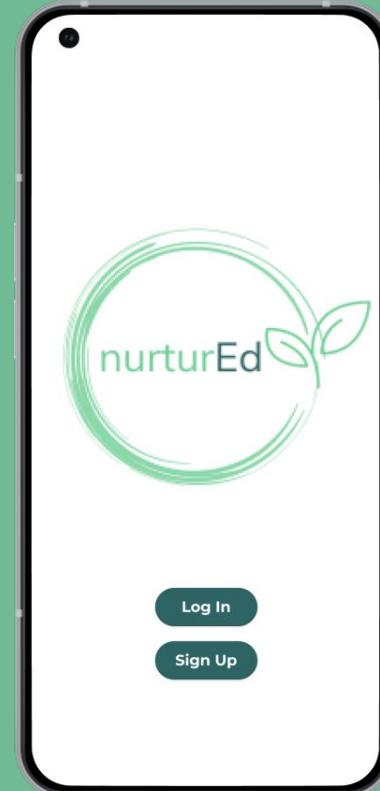


An education expert in your pocket

1. Ok
1. What is a co-term. I'd still introduce yourselves
2. Good story
3. ~~remove "all students deserve a quality education" I think everyone agrees.~~ ***
4. Slow down on this important SLIDE ****
5. Ok
6. Read those captions to give us an idea of what was there **
7. Ok – mention homeschooling more
8. Mention homeschooling
9. ok
10. Pick top 3 of these 4 and cut some text so doesn't wrap
11. Images too small to follow. Can you focus on the one key change you talked about and only show that????
 1. Less bullets. Do we need all of this?
12. Above
13. Animate in and point to or animate oval on whatever you are talking about at each point on this slide. All too small. Two slides????
14. Above
15. Can we cut some text. Maybe just the highlight titles are enough
 1. Make clearer what you are talking about. Animate red circles and screens in
16. Above
17. Slower on this slide
18. Animate in each screen as you talk about them
19. Feels like way too much. Are there 3 or 4 screens at most you can focus on and animate in as you talk about it
20. This looks good and I add red circles and animate in as you talk about it so I know what you are talking about
21. Good. Make sure seedling is what you invented (say that). Animate in these
22. Demo: what is a lesson? Wasn't really clear from earlier give a better overview of the idea early on
23. This should probably be your last slide (add names and QR code of your project in white space at bottom left).
24. I'd put this before 24
25. I would build this into what you say first on 24 without have the bullets.
26. Integrate this in earlier

Mission

Empowerment and confidence through
personalized feedback and AI
assistance

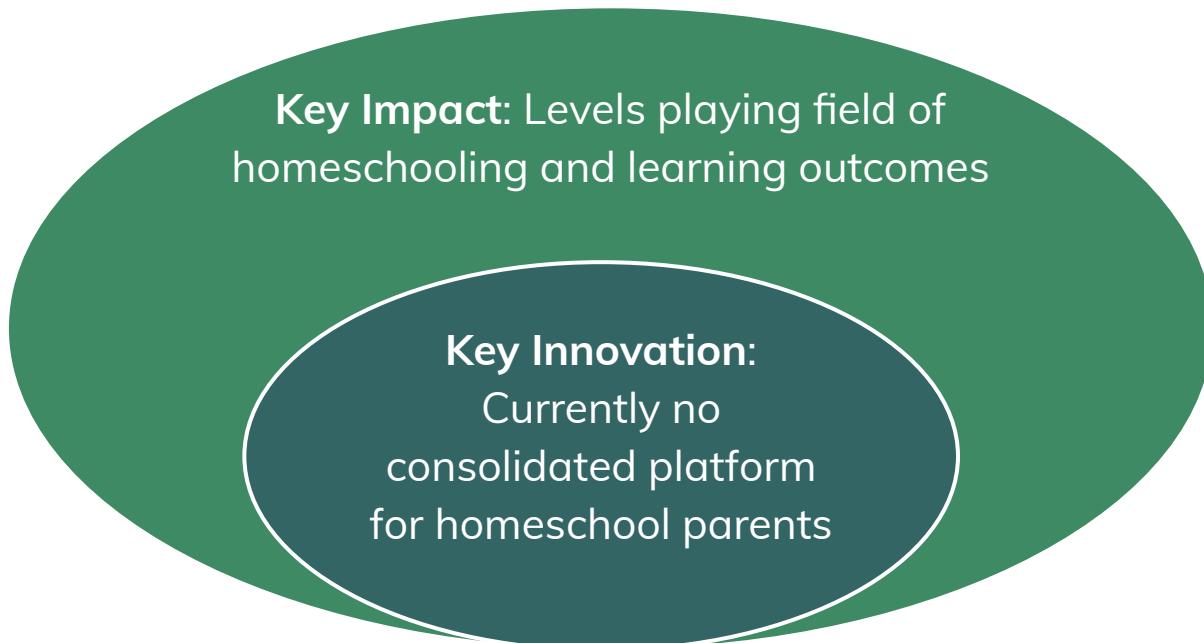


Education expert in your pocket

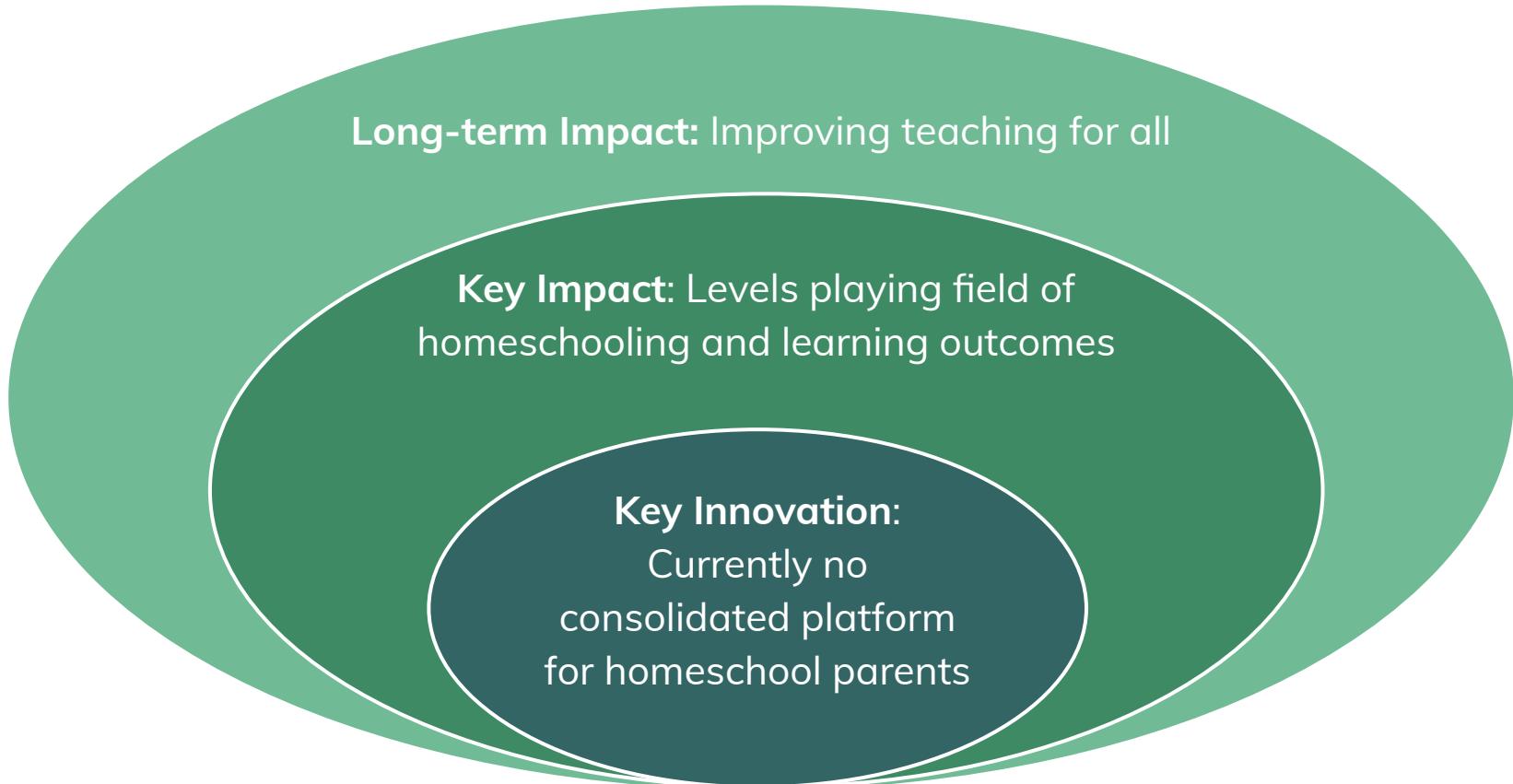
Summary

Key Innovation:
Currently no
consolidated platform
for homeschool parents

Summary



Summary



Tasks



Save the “Tip of the Day,” explore it in more detail, and navigate to saved tips



Record and upload a live lesson



Find a lesson report and engage with the recommendations

Summary

- **Key Innovation:** currently no consolidated platform for homeschool parents
 - One-step system for accessible coaching, feedback, resources, growth
 - **Key Impact:** levels playing field of homeschooling and learning outcomes
 - Gives access to critical feedback to homeschooling parents
 - **Long-term Impact:** improving teaching overall
 - Homeschooled students have better learning outcomes
-

Next Steps



- High-fidelity prototype
- Implement AI functionality
- Continued user testing
- Find partnerships
 - Co-ops
 - Charter schools
 - Curriculum creators
 - Homeschooling conventions

tip of the day



Home

Tip of the Day

Embrace a growth mindset as a homeschooling parent by focusing on the process of learning rather than just the outcomes.

Save **Learn More**

Recent Lessons:

- Recorded a lesson Student 1 | Photosynthesis 1d ago [SEE REPORT >>](#)
- Recorded a lesson Student 2 | Water Cycle 1d ago [SEE REPORT >>](#)
- Recorded a lesson Student 1 | Long Division 4d ago [SEE REPORT >>](#)

Learn More

← Learn More

Embrace a growth mindset

Insights | Mon, May 8:

of Question →

Autonomy in learning

Adolescents are 110% more likely to creatively develop their passions when they are given more autonomy in their learning.

[LEARN MORE >>](#)

Eliciting student engagement

When students are actively engaged, they are more motivated and involved, leading to improved retention and application of knowledge.

[LEARN MORE >>](#)

Home

Tip of the Day

Saved!

Unsave **Saved Tips**

Recent Lessons:

- Recorded a lesson Student 1 | Photosynthesis 1d ago [SEE REPORT >>](#)
- Recorded a lesson Student 2 | Water Cycle 1d ago [SEE REPORT >>](#)
- Recorded a lesson Student 1 | Long Division 4d ago [SEE REPORT >>](#)

← Saved Tips

Search for anything...

Sun, Feb 29

Be patient - Homeschooling can be a challenging process for both parent and child.

Sun, Feb 29

Provide positive reinforcement! Reinforce your child's positive behavior and encourage them with positive feedback

Sun, Feb 29

Be flexible. Try different strategies and activities and be willing to adjust as needed.

Sun, Feb 29

Set a daily routine for yourself and your child, and stick to it. This will help keep your child on track and focused on their studies

"I want to learn more about the tip of day"



record lesson

The image displays a grid of eight mobile application screens, likely from a prototype or design system, illustrating various features of a recording application:

- Recording**: A screen showing a "How it works" section with a list of bullet points, a "Privacy" section with another list of bullet points, and a "Saved Drafts" section. At the bottom is a large green "Record" button.
- Recording**: Shows a waveform visualization and a timer indicating 47:08. Below the waveform are "pause" and "stop" buttons.
- Recording**: A confirmation dialog box asking "Are you finished with the lesson?" with "Yes" and "No" buttons. Below the dialog are "pause" and "stop" buttons.
- Recording Draft**: A modal titled "Next Steps" with four buttons: "Edit", "Delete", "Save Draft", and "Upload". Below the modal are "pause" and "stop" buttons.
- Edit**: A screen for editing a "Lesson Transcript". It shows a message from a user at 0:00 about the water cycle, and a message from another user at 12:53. At the bottom are "Edit" and "Finish" buttons.
- Recording Details**: A screen for adding details to a recording. It shows a list of categories: Water Cycle, Science, and Charlie, Jonas, Leya. Below the list are "Edit" and "Upload" buttons.
- Recording Details**: A summary screen showing the "Water cycle" recording with a date of 05/17/2023. It lists children: Charlie, Jonas, and Leya. Below the summary are "Edit" and "Upload" buttons.
- Recording Details**: A progress bar indicating "Uploading your recording!" at 20% complete. Below the progress bar are "Edit" and "Upload" buttons.

"What is someone yells some private information in the middle of the recording, like a credit card number"



lesson report

The screenshots show a mobile application for managing lesson reports. The first screenshot displays a list of lessons: Photosynthesis (Monday, May 08), Creative Writing (Monday, May 08), American Revolution (Monday, May 08), and Shakespeare (Monday, May 08). Each lesson card includes student names (Charlie, Jonas, Leya) and a subject icon. The second screenshot shows a detailed view for the Photosynthesis lesson, listing sections like Summary, What Worked, Content Suggestions, Teaching Methodology, and Additional Resources. The third screenshot shows a detailed view for the Photosynthesis lesson, with a summary section expanded to show bullet points about photosynthesis topics.

Lesson Reports

Photosynthesis Monday, May 08

Charlie Jonas

Creative Writing Monday, May 08

Charlie

American Revolution Monday, May 08

Charlie Leya

Shakespeare Monday, May 08

Jonas Leya

Photosynthesis

← Lesson Report

Student: Student 1
Instructor: Parent 1

View Transcript

Expand all Collapse all

Summary

What Worked

Content Suggestions

Teaching Methodology

Additional Resources

Chat with AI assistant

Photosynthesis

← Lesson Report

Student: Student 1
Instructor: Parent 1

View Transcript

Expand all Collapse all

Summary

In this lesson, Parent 1 taught Student 1 about photosynthesis. The topics covered were

- Plant parts
- Sunlight
- Carbon dioxide and water intake
- Chloroplasts
- Glucose

What Worked

Content Suggestions

Chat with AI assistant

“I do like that there are bullet points [in summary].”



AI Assistant

The image displays two side-by-side screenshots of a mobile application interface. Both screens have a light gray header bar with the text "AI Assistant" and a question mark icon. Below the header is a white input field labeled "Chat with AI assistant" with a microphone icon. At the bottom are four navigation icons: a house, a clipboard, a microphone, and a speech bubble.

Screenshot 1: The top bar says "AI Assistant". A green box contains the text "Seedling" with a small owl icon. Below it is a message from "Seedling": "Hi there! I'm Seedling, and I'm here to answer any and all questions you may have about homeschooling! What can I help with today?"

Screenshot 2: The top bar says "AI Assistant". A green box contains the text "Seedling" with a small owl icon. Below it is a message from "Seedling": "Hi there! I'm Seedling, and I'm here to answer any and all questions you may have about homeschooling! What can I help with today?"

Bottom of Screenshot 2: A yellow box contains a message: "Hi! I'm pretty new to homeschooling and feel like I need ideas for hands-on experiences that I can use to engage my son. He's in first grade and really interested in science and Legos. Do you have any ideas for activities that could use Legos and teach him some science concept?"

"You're providing parents with the kind of expertise they would get when sitting down with an education expert."

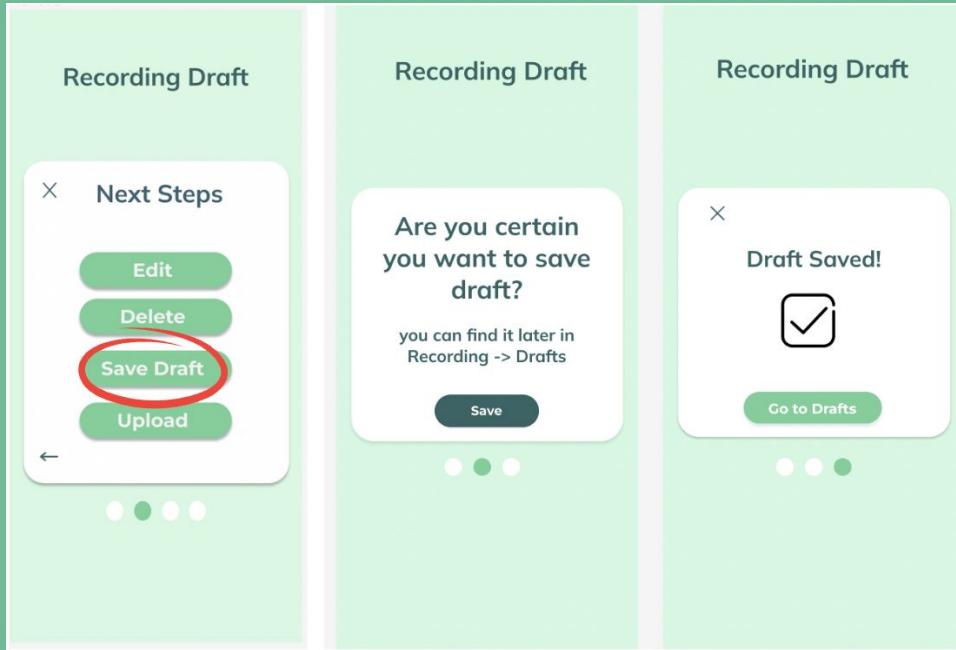


Using Seedling

1. Seedling is an AI Assistant here to give you personalized assistance!
2. Ask Seedling any question and it will give you a tailored response and personalized recommendations
3. Specify exactly what kind of outputs you want from Seedling, such as:
 - a. "Give me a bullet-pointed list of 5 experiments that help teach about Photosynthesis."
4. Press the speaker icon to listen to messages from Seedling.

Back

Other Changes



Iteration: user autonomy

Med-fi 1 & Feedback

Navigation Bar Update

- Intuitive navigation
- Clear icons

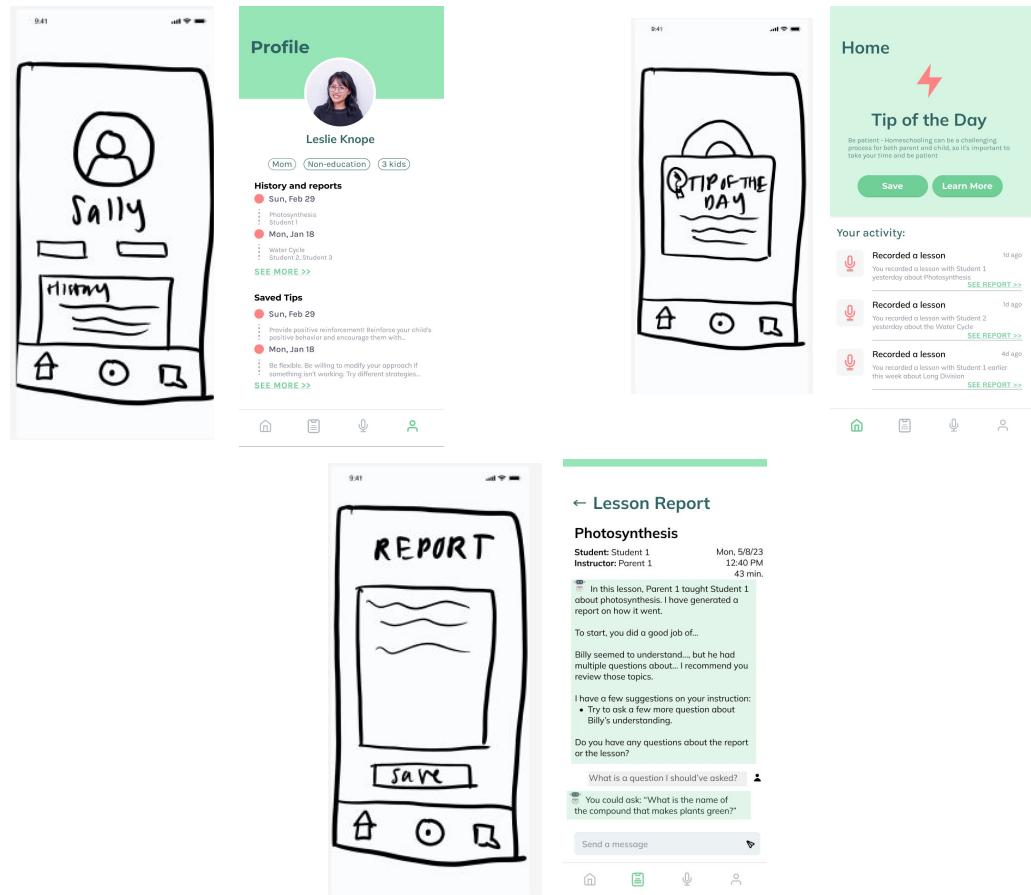
Tip of the Day

- Save and learn more functionality

Lesson Report

- Interactive
- Positive and critical feedback

No Feedback Simulation



Med-fi 2

← Lesson Report

Photosynthesis

Student: Student 1
Instructor: Parent 1

Mon, 5/8/23
12:40 PM
43 min.

Expand all | Collapse all

Summary ▾

In this lesson, Parent 1 taught Student 1 about photosynthesis. The topics covered were:

- Plant parts
- Sunlight
- Carbon dioxide and water intake
- Chloroplasts
- Glucose

What worked ▾

Suggestions ▾

Additional Resources ▾

Chat with AI assistant ▾

Chat with AI assistant ▾

Home | Document | Microphone | Person | Chat with AI assistant

Lesson report sections

AI Agent

Hi there! I'm Seedling, and I'm here to answer any and all questions you may have about homeschooling! What can I help with today?

AI Agent

Hi there! I'm Seedling, and I'm here to answer any and all questions you may have about homeschooling! What can I help with today?

Chat with AI assistant

Chat with AI assistant

Home | Document | Microphone | Person | Chat with AI assistant

AI agent separate from report

← Tip of the Day

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Your insights | Mon, May 8:

In your past 3/7 lessons, the ratio of time spent teaching vs engaging with the students and their questions has been 80:20.

SPEAKING

This graphic shows the number of questions asked per lesson in the past week.

LEARN MORE >

Autonomy in learning

Research has shown that adolescents are 110% more likely to creatively develop their passions and explore their own interests and foster increased independence when they are given more autonomy in their learning. This leads to better learning outcomes.

LEARN MORE >

Eliciting student engagement

When students are actively engaged in the learning process, they become more motivated, attentive, and involved, leading to improved retention and application of knowledge.

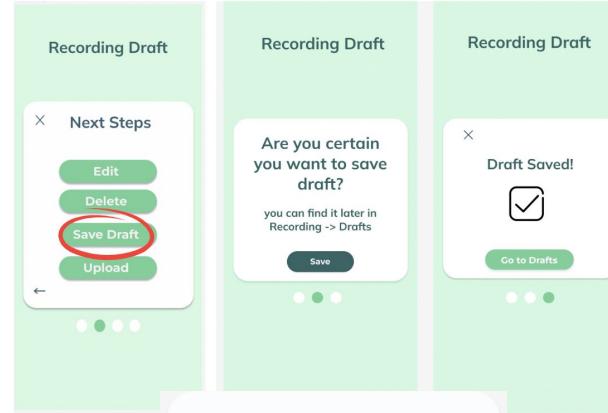
LEARN MORE >

Home | Document | Microphone | Person | Chat with AI assistant

Med-fi 3 & Feedback

Saved Drafts

- More user autonomy



AI Assistant Info Page

- Clarify use cases
- Reduce cognitive load

View Transcript Button

- Access to transcripts after upload

Using Seedling

1. Seedling is an AI Assistant here to give you personalized assistance!
2. Ask Seedling any question and it will give you a tailored response and personalized recommendations
3. Specify exactly what kind of outputs you want from Seedling, such as:
 - a. "give me a bullet-pointed list of 5 websites that talk about Photosynthesis"
4. Press the speaker icon to listen to messages from Seedling.

[Back](#)

← Lesson Report

Photosynthesis

Student: Student 1
Instructor: Parent 1

[View Transcript](#)

Expand all Collapse all

Summary

What Worked

Content Suggestions

Teaching Methodology

Additional Resources

Chat with AI assistant

Home Transcript Microphone Chat Profile



Education expert in your pocket

outline

1. Intro
 - a. ~~Intro our team~~
 - b. ~~Go into story~~
 - i. ~~Angela, mother of 4, HS eldest 2, no edu background, struggled with knowing how to give feedback and wanting to improve teaching but not knowing how~~
 - c. ~~Process~~
 2. Process
 - a. ~~Once we had a need → we define problem statement~~
 - b. ~~we concept sketched and chose app~~
 - c. Then storyboarding and low-fi sketches
 - i. Pivoted away from feedback simulator - time is key resource
 - ii. Including general AI agent - access to education expertise that is often \$\$\$
 3. Solution
 - a. From this problem, we designed a solution: app for homeschooling parents to be an education expert in their pocket (powered by AI)
 - b. Functionality - walk thru each task
 - i. Reasoning of each task
 - ii. what it does / how it works
 4. Next steps
 5. Summary
 6. Contact?
-

I. Introduction

1. **Project title & team** (*introduce yourselves*) [1 slide]
 - a. Title your pitch as the **opportunity rather than just the title of the project**
 - b. An anecdote to hook them in (**tell a story** from needfinding about a real person)
2. **Outline** (**briefly** tell us what you are going to tell us in the rest of the talk – tell a story)
 - a. **brief Problem** overview (**Problem, existing solutions & why inadequate**)
 - b. **brief Solution** overview (**Solution, user interface, implementation**)
 - i. How is AI incorporated?
 - ii. How does this problem create **educational inequities**?

II. Problem

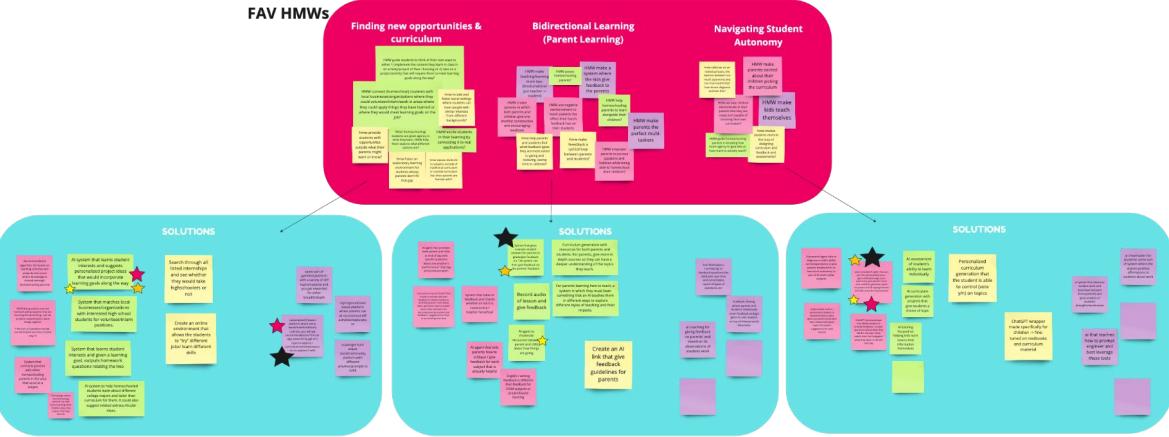
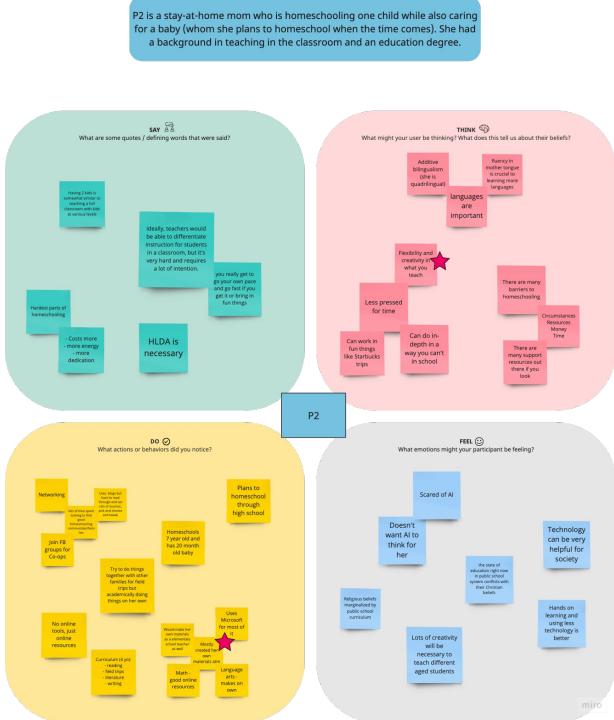
3. **Problem**
 - a. Introduction to the overall problem (great place for a story, describe needfinding) (**w/ images**)
 - b. Your final POV-statement

III.

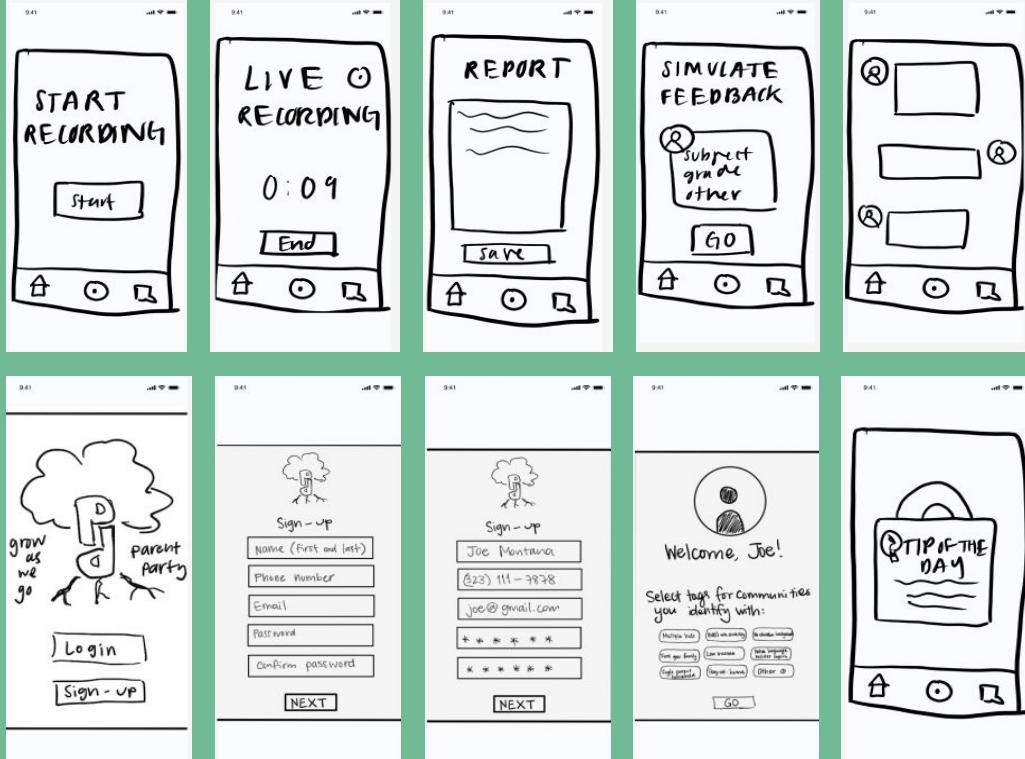
I. Our Solution

1. **Solution** [1 slide]
 - a. Brief **mission** statement or **value proposition**
 - b. High-level **solution** description (w/ image of design)
2. **Design Evolution** [multiple slides]
 - a. Show **major steps** (including, sketches, prototypes, etc.)
 - b. Explain key **reasoning/evidence** behind design changes (i.e., evaluation technique & 1-2 key findings that lead to a design change)
3. **User Interface**
 - a. Tasks & Interface Description [**multiple slides for each task**]
 - i. Explain the **reasoning** behind the choice of each of the tasks
 - ii. Present **walkthrough** of each task
 - iii. Explain what it does & how it works
 - b. Should include a **live 1 to 3-minute demo or video** (video backup good idea)
 - i. Integrate with tasks if it makes more sense for you
4. **Next steps** [1 slide]
 - a. If you were continuing this project, what would the **next steps** be?
 - b. What **resources and partnerships** are required to succeed?
5. **Summary**
 - a. What is your **key innovation**?
 - b. What will your **key immediate impact** on the world be?
 - c. What will be the **long-term impact** of your product?
6. **Contact information (optional)**
 - a. Include team members' contact info if you want visitors to connect with you
 - i. ex) LinkedIn, email, etc

post-interview redux



Med-fi Prototype & Learnings



Time is a key resource:
no time for the simulation

Privacy concerns:
ability to edit input before sending

AI is non-threatening:
no pressure of judgment

Student feedback matters:
include them in the process

Proxy for expensive teaching programs:
accessible resources

tip of the day



Home

Tip of the Day

Embrace a growth mindset as a homeschooling parent by focusing on the process of learning rather than just the outcomes.

Save **Learn More**

Recent Lessons:

- Recorded a lesson Student 1 | Photosynthesis 1d ago [SEE REPORT >>](#)
- Recorded a lesson Student 2 | Water Cycle 1d ago [SEE REPORT >>](#)
- Recorded a lesson Student 1 | Long Division 4d ago [SEE REPORT >>](#)

Saved Tips

← Learn More

Embrace a growth mindset

Insights | Mon, May 8:

of Question # of questions/lesson

Autonomy in learning
Adolescents are 110% more likely to creatively develop their passions when they are given more autonomy in their learning. [LEARN MORE >>](#)

Eliciting student engagement
When students are actively engaged, they are more motivated and involved, leading to improved retention and application of knowledge. [LEARN MORE >>](#)

Home

Tip of the Day

Saved!

Unsave **Saved Tips**

Recent Lessons:

- Recorded a lesson You recorded a lesson with Student 1 yesterday about Photosynthesis 1d ago [SEE REPORT >>](#)
- Recorded a lesson You recorded a lesson with Student 2 yesterday about the Water Cycle 1d ago [SEE REPORT >>](#)
- Recorded a lesson You recorded a lesson with Student 1 earlier this week about Long Division 4d ago [SEE REPORT >>](#)

← Saved Tips

Search for anything...

Sun, Feb 29
Be patient - Homeschooling can be a challenging process for both parent and child.

Sun, Feb 29
Provide positive reinforcement! Reinforce your child's positive behavior and encourage them with positive feedback

Sun, Feb 29
Be flexible. Try different strategies and activities and be willing to adjust as needed.

Sun, Feb 29
Set a daily routine for yourself and your child, and stick to it. This will help keep your child on track and focused on their studies

"I want to learn more about the tip of day" - Med-Fi 1 Participant



POV

We met...

a mother of four who is currently homeschooling her two eldest daughters. She was a nurse before becoming a stay-at-home mother.

We were surprised to realize...

that she sees the public school system as an artificial setting that exists to serve parents (their schedules, careers) and not children.

We wonder if this means...

she feels like homeschooling is a system that can serve both her and her children at the same time

It would be game-changing to...

empower parents to be able to have the flexibility and time to work while homeschooling.

POV 1:

feedback and assessment

53

WE MET...
a current Master's student who was homeschooled from 2nd to 5th grade for the purpose of pursuing competitive tennis.

WE WERE SURPRISED TO REALIZE...
the parent-student relationship wasn't very good and teaching wasn't the main focus (math, reading and writing and exam before).

WE WONDER IF THIS MEANS...
in 7th grade, caught up and studied everything on the SAT (math, reading and writing and exam before).

IT WOULD BE GAME-CHANGING TO...
it's difficult to assess academic levels, especially at a younger age.

WE WERE SURPRISED TO REALIZE...
the parent-student relationship wasn't very good and teaching wasn't the main focus (math, reading and writing and exam before).

WE WONDER IF THIS MEANS...
teaching well is not easy.

IT WOULD BE GAME-CHANGING TO...
it's difficult to assess academic levels, especially at a younger age.

WE WERE SURPRISED TO REALIZE...
the parent-student relationship wasn't very good and teaching wasn't the main focus (math, reading and writing and exam before).

WE WONDER IF THIS MEANS...
teaching well is not easy.

IT WOULD BE GAME-CHANGING TO...
create a personalized way to easily assess the level of a student and to find their strengths and weaknesses.

WE WERE SURPRISED TO REALIZE...
the parent-student relationship wasn't very good and teaching wasn't the main focus (math, reading and writing and exam before).

WE WONDER IF THIS MEANS...
teaching well is not easy.

IT WOULD BE GAME-CHANGING TO...
create a feedback platform for parents with good resources, materials.

POV 2:

agency vs authority

54

WE MET...
a current college freshman who was homeschooled by his mother from pre-k all the way through high school, along with his three brothers.

WE WERE SURPRISED TO REALIZE...
he had significant independence in his homeschooling experience in terms of choosing subjects on his own while his parents allowed him to pick what he was studying through interviews.

WE WONDER IF THIS MEANS...
he has significant independence in his homeschooling experience in terms of choosing subjects on his own while his parents allowed him to pick what he was studying through interviews.

IT WOULD BE GAME-CHANGING TO...
have a method to determine how much agency to give students in their education and how much hands-on guidance and instruction they need.

54

POV 3:

empowering & supporting homeschool parents

54

WE MET...
a mother of four who is currently homeschooling her two eldest daughters. She was a single mom before becoming a stay-at-home mother.

WE WERE SURPRISED TO REALIZE...
that she sees the public school system as an artificial setting designed to serve parents and their schools, careers and not children.

WE WONDER IF THIS MEANS...
many parents have similar feelings but can't afford to homeschool due to different circumstances (like finances) and are unable to enter their local public school "without system".

IT WOULD BE GAME-CHANGING TO...
give both the homeschooling and public school systems the same tools.

POV 1: feedback and assessment

S3

WE MET...

a current Master's student who was homeschooled from 2nd to 9th grade for the purpose of pursuing competitive tennis.

WE WERE SURPRISED TO REALIZE...

the parent-teacher relationship wasn't good and teaching wasn't the main focus (tennis was!)

WE WONDER IF THIS MEANS...

it's difficult to assess academic levels, especially at younger ages

IT WOULD BE GAME-CHANGING TO...

create a personalized way to evaluate the needs of a student and to find their strengths and weaknesses

teaching well is not easy

provide homeschooling parents with good resources, materials

the bigger problem was... remembers about her father's teaching was the most important part of his education and the only way he knew how to give feedback

that parents (esp those whose background in education didn't know how to provide effective, academic feedback)

create a feedback platform to mediate between homeschooling parents and their students

POV 2: agency vs authority

S4

WE MET...

a current college freshman who was homeschooled by his mother from pre-k all the way through high school, along with his three brothers

WE WERE SURPRISED TO REALIZE...

he had significant independence in his homeschooling experience in learning and subjects on his own when his parents allowed him to pick what he was studying through internships.

WE WONDER IF THIS MEANS...

freedom and autonomy from a young age is a productive force for one's learning

IT WOULD BE GAME-CHANGING TO...

have a method to determine how much agency to give students in their learning process and how much hands-on guidance and instruction they need

POV 3: empowering & supporting homeschool parents

P4

WE MET...

a mother of four who is currently homeschooling her two sons and daughters. She was a nurse before becoming a stay-at-home mom.

WE WERE SURPRISED TO REALIZE...

she sees the public school system as an artificial setting that exists to serve parents (not students, parents) and not children.

WE WONDER IF THIS MEANS...

many parents have similar fears but prefer to homeschool due to different circumstances (like finances) and would like to enter their children into an "virtual system"

IT WOULD BE GAME-CHANGING TO...

empower parents to be able to have the flexibility and time to work while homeschooling

she feels like homeschooling is a system that can serve both parents and students in a learning model

Next

problem

inspiration, needfinding

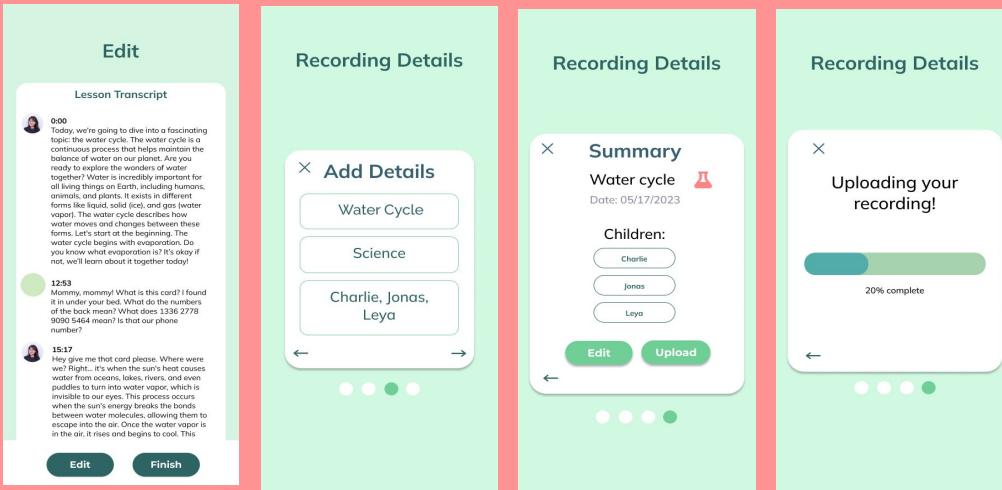
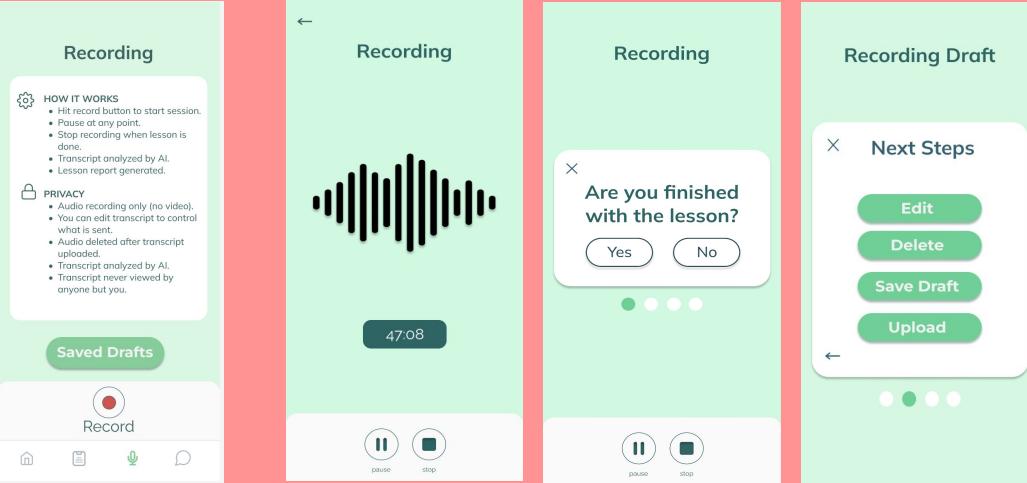
solution

design evolution, user interface, next steps

design change redux (med, heuristics)

design change redux (med, heuristics)

record lesson



tip of the day

The screenshot displays the Med-Fi mobile application interface. At the top, there is a lock icon and the time '5:36' followed by 'Sunday, February 27'. Below this, the main screen shows a 'Tip of the Day' card with the title 'Be patient - Homeschooling can be a challenging process for both parent and child. Take your time!' and a 'Save' button. A large red arrow points from the 'Tip of the Day' card to the 'Tip of the Day' section in the 'Home' screen.

The 'Home' screen features a 'Tip of the Day' card at the top. Below it, there is a section titled 'Your activity' with three items: 'Recorded a lesson' (Student 1 | Photosynthesis), 'Recorded a lesson' (Student 2 | Water Cycle), and 'Recorded a lesson' (Student 1 | Long Division). A red arrow points from the 'Tip of the Day' card in the 'Home' screen to the 'Saved Tips' section in the 'Profile' screen.

The 'Profile' screen shows a user profile picture of 'Leslie Knope' and a 'History and reports' section with two entries: 'Sun, Feb 29' (Photosynthesis, Student 1) and 'Mon, Jan 18' (Water Cycle, Student 2; Student 3). A red arrow points from the 'Tip of the Day' card in the 'Home' screen to the 'Saved Tips' section in the 'Profile' screen.

The 'Saved Tips' screen lists three saved tips: 'Be patient - Homeschooling can be a challenging process for both parent and child.' (Sun, Feb 29), 'Provide positive reinforcement! Reinforce your child's positive behavior and encourage them with positive feedback' (Sun, Feb 29), and 'Be flexible. Be willing to modify your approach if something isn't working. Try different strategies and activities and be willing to adjust as needed.' (Mon, Jan 18). A red arrow points from the 'Tip of the Day' card in the 'Home' screen to the 'Saved Tips' section in the 'Profile' screen.

On the right side of the interface, there are three additional screens: 'Tip of the Day' (with a bar chart showing 80.20% spent teaching vs 19.79% spent engaging), 'Autonomy in learning' (with a bar chart showing % goals achieved after autonomy vs before autonomy), and 'Eliciting student engagement' (with a bar chart showing % goals achieved after students were given autonomy vs before autonomy).

"I want to learn more about the tip of day" - Med-Fi 1 Participant

tip of the day



Home

Tip of the Day

Be patient - Homeschooling can be a challenging process for both parent and child. Take your time!

Save **Learn More**

Your activity:

Recorded a lesson
Student 1 | Photosynthesis
SEE REPORT >>

Recorded a lesson
Student 2 | Water Cycle
SEE REPORT >>

Recorded a lesson
Student 1 | Long Division
SEE REPORT >>

Profile

Leslie Knope

History and reports

• Sun, Feb 29
Photosynthesis
Student 1

• Mon, Jan 18
Water Cycle
Student 2, Student 3

SEE MORE >>

Saved Tips

• Sun, Feb 29
Provide positive reinforcement! Reinforce your child's positive behavior and encourage them with positive feedback.

• Mon, Jan 18
Be flexible. Be willing to modify your approach if something isn't working. Try different strategies...

SEE MORE >>

← Tip of the Day

Be patient - Homeschooling can be a challenging process for both parent and child, so it's important to take your time and be patient

Your insights | Mon, May 8:

Post 3/7 lessons
Time spent teaching vs Time spent engaging
80:20

of questions/lesson

Autonomy in learning

Adolescents are 110% more likely to creatively develop their passions when they are given more autonomy in their learning.

Eliciting student engagement

When students are actively engaged, they are more motivated and involved, leading to improved retention and application of knowledge.

LEARN MORE >>

Insights in Action

- Ask for student feedback early and often
- Keep students in the loop during lesson planning
- Leave unstructured segments of planned lesson time

References

MICHAEL, ET AL., PAPER 1
MARKS, ET AL., PAPER 1
KWAK, ET AL., PAPER 1
ZHANG, ET AL., PAPER 1

← Autonomy in learning

By providing students with the freedom to make choices, set goals, and explore their interests, autonomy fosters intrinsic motivation, self-directed learning, and a sense of ownership, leading to a greater sense of fulfillment in the learning process.

% GOALS ACHIEVED AFTER STUDENTS GIVEN AUTONOMY

% GOALS ACHIEVED BEFORE STUDENTS GIVEN AUTONOMY

Insights in Action

- Ask for student feedback early and often
- Keep students in the loop during lesson planning
- Leave unstructured segments of planned lesson time

References

MICHAEL, ET AL., PAPER 1
MARKS, ET AL., PAPER 1
KWAK, ET AL., PAPER 1
ZHANG, ET AL., PAPER 1

← Saved Tips

Search for anything...

English

• Sun, Feb 29
Be patient - Homeschooling can be a challenging process for both parent and child.

• Sun, Feb 29
Provide positive reinforcement! Reinforce your child's positive behavior and encourage them with positive feedback.

• Sun, Feb 29
Be flexible. Be willing to modify your approach if something isn't working. Try different strategies...

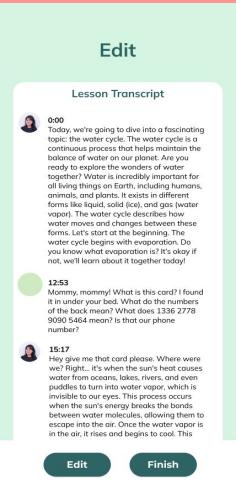
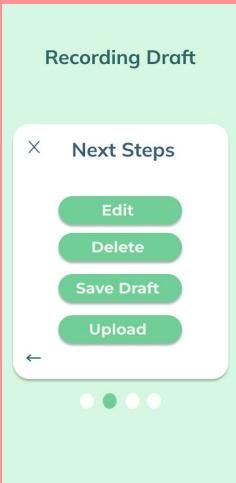
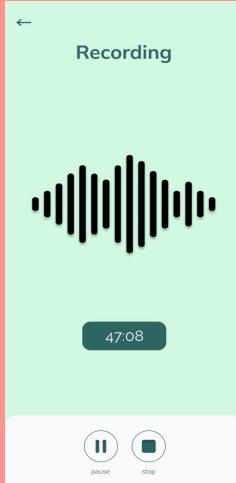
• Sun, Feb 29
Set a daily routine for yourself and your child, and stick to it. This will help keep your child on track and focused on their studies

tip of the day

“I want to learn more
about the tip of day” -
Med-Fi 1 Participant



record lesson



record lesson

-

lesson report

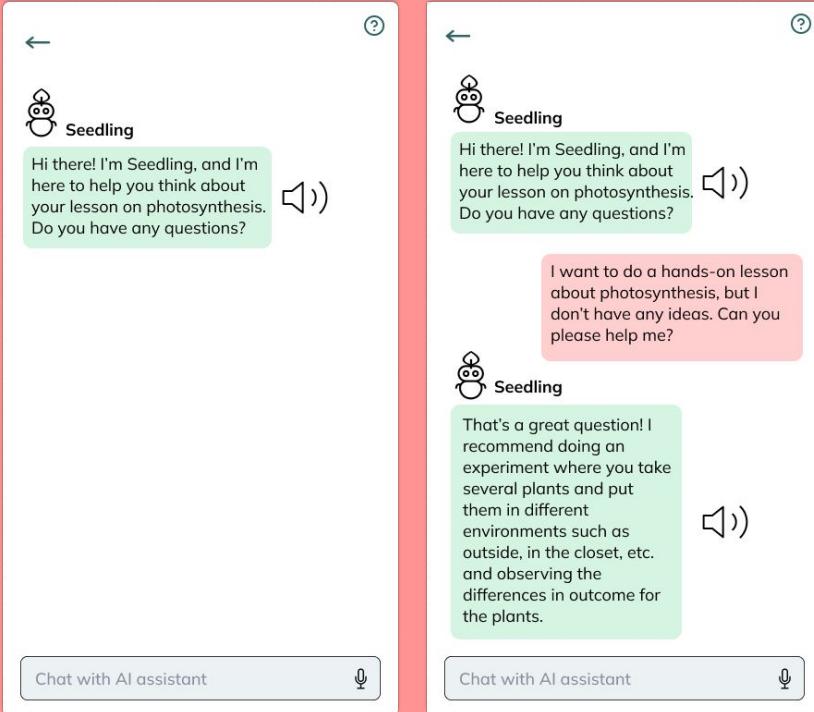
The image displays three sequential screenshots of a mobile application interface for managing lesson reports.

Left Screenshot: The "Lesson Reports" screen shows a list of completed lessons. Each entry includes the lesson title, date (Monday, May 08), students involved (e.g., Charlie, Jonas), and a small icon representing the subject (e.g., test tube for Photosynthesis). A search bar and filter button are at the top.

Middle Screenshot: A "Lesson Report" for "Photosynthesis" is shown. It details the student (Student 1) and instructor (Parent 1). Below this, there are expandable sections for "Summary", "What Worked", "Content Suggestions", "Teaching Methodology", and "Additional Resources". At the bottom is a "Chat with AI assistant" bar.

Right Screenshot: A detailed view of the "Photosynthesis" report. The "Summary" section is expanded, revealing text about the lesson's content. Below it, the "What Worked" section is also expanded, listing specific teaching points: Plant parts, Sunlight, Carbon dioxide and water intake, Chloroplasts, and Glucose.

AI Assistant



"You're providing parents with the kind of expertise they would get when sitting down with an education expert." - Med-fi 2 Participant

Using Seedling

1. Seedling is an AI Assistant here to give you personalized assistance!
2. Ask Seedling any question and it will give you a tailored response and personalized recommendations
3. Specify exactly what kind of outputs you want from Seedling, such as:
 - a. "Give me a bullet-pointed list of 5 experiments that help teach about Photosynthesis."
4. Press the speaker icon to listen to messages from Seedling.

Back

demo

reflection

roadmap + summary of impact

insights

Motivation to Homeschool

Methods of Teaching

Peers & Community

Agency vs Authority

“The right amount of boredom is the **breeding ground for creativity**, but too much boredom is the breeding ground for trouble.” – P1



“Parents say: you’re my kid. I know what’s best for you. But they forget that the **kid needs to have some agency** in the process as well.” – S3



“Public schools are in place to serve parents’ lifestyles. But I don’t think that’s a natural way to function as a child. It’s an **artificial setting**.” – P4



— themes of change

Interface “Tone”

User Autonomy